

FIG. 1

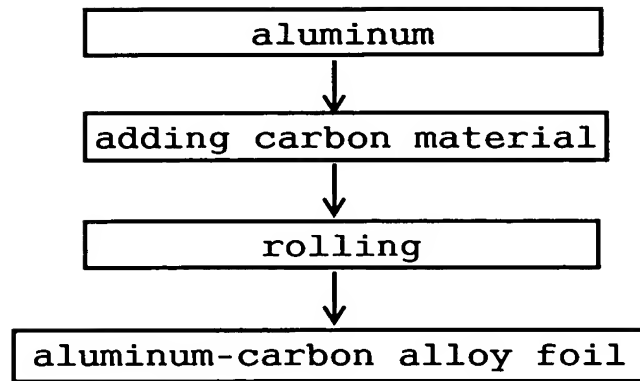


FIG. 2A

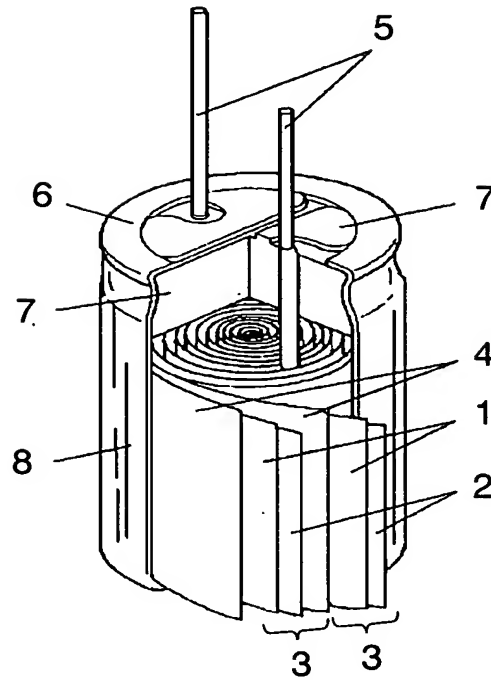


FIG. 2B

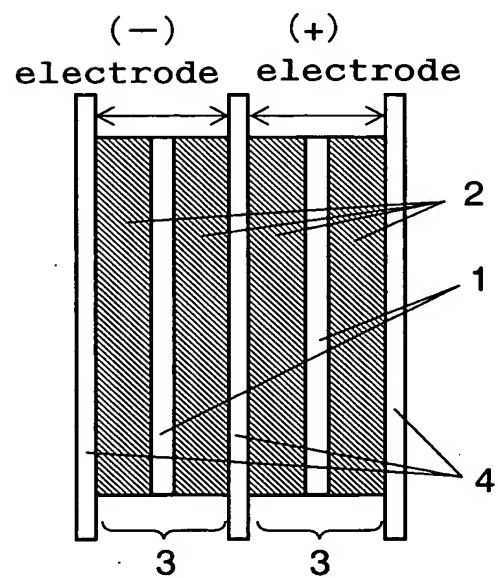


FIG. 3

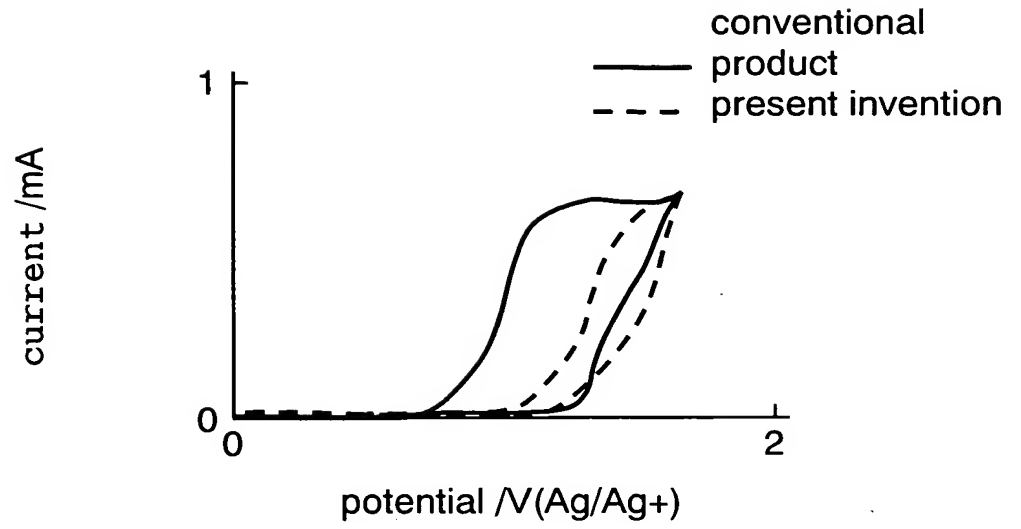


FIG. 4

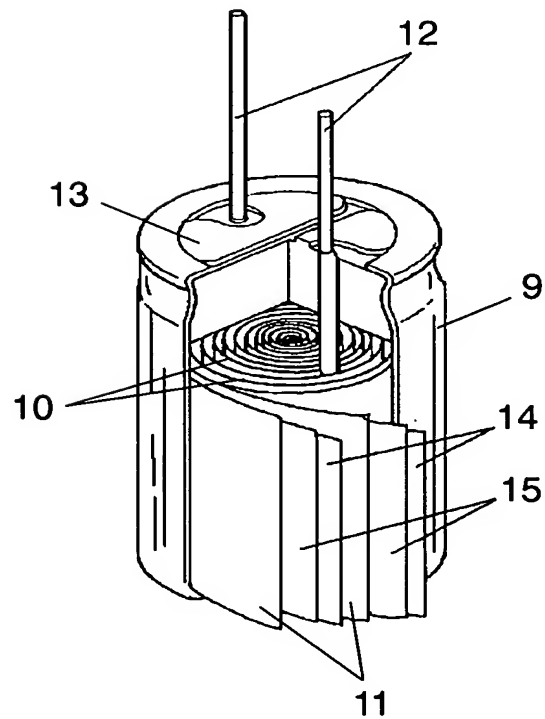


FIG. 5

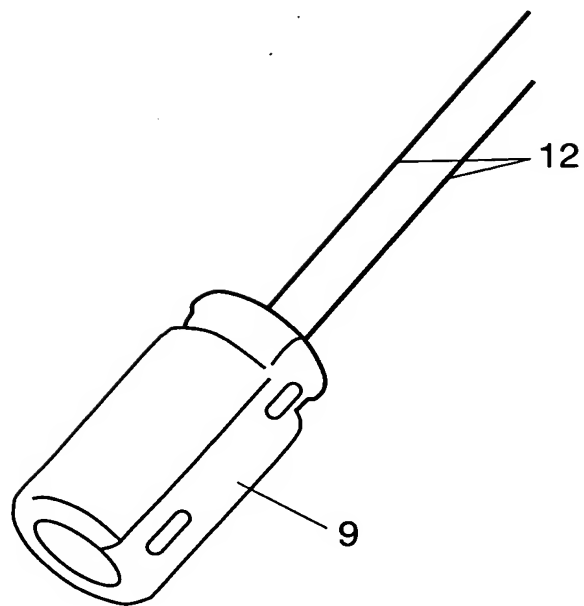


FIG. 6A

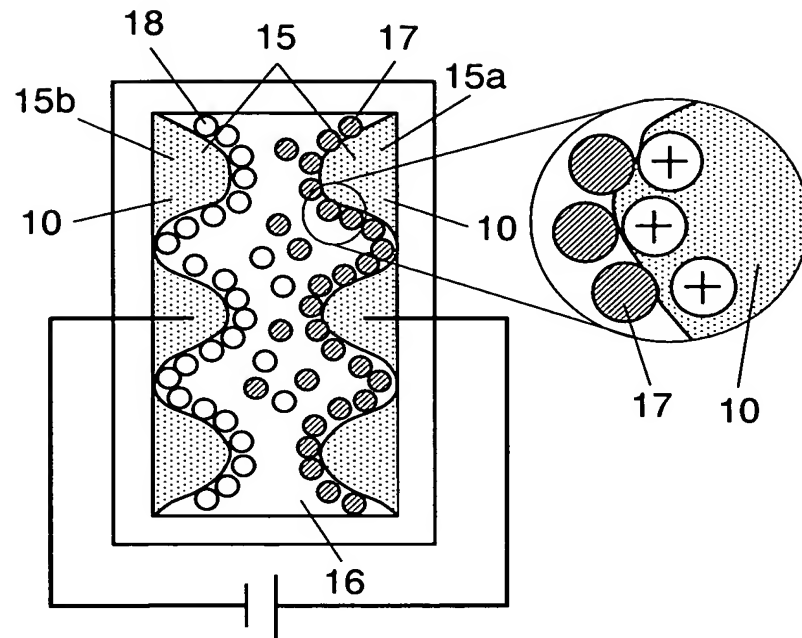


FIG. 6B

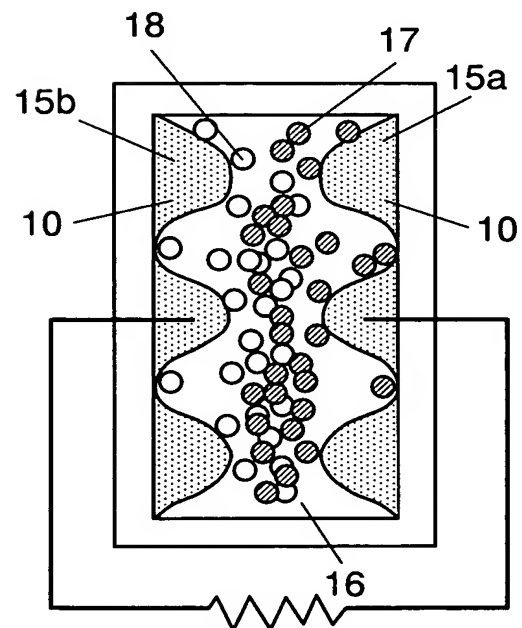


FIG. 7A

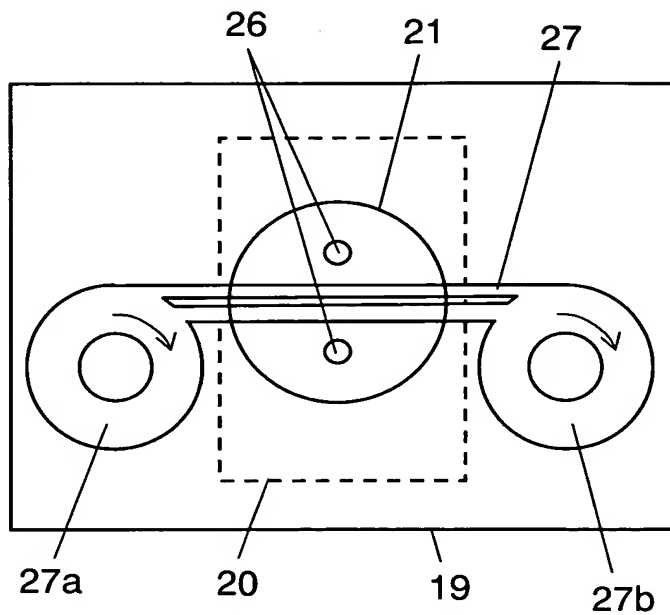


FIG. 7B

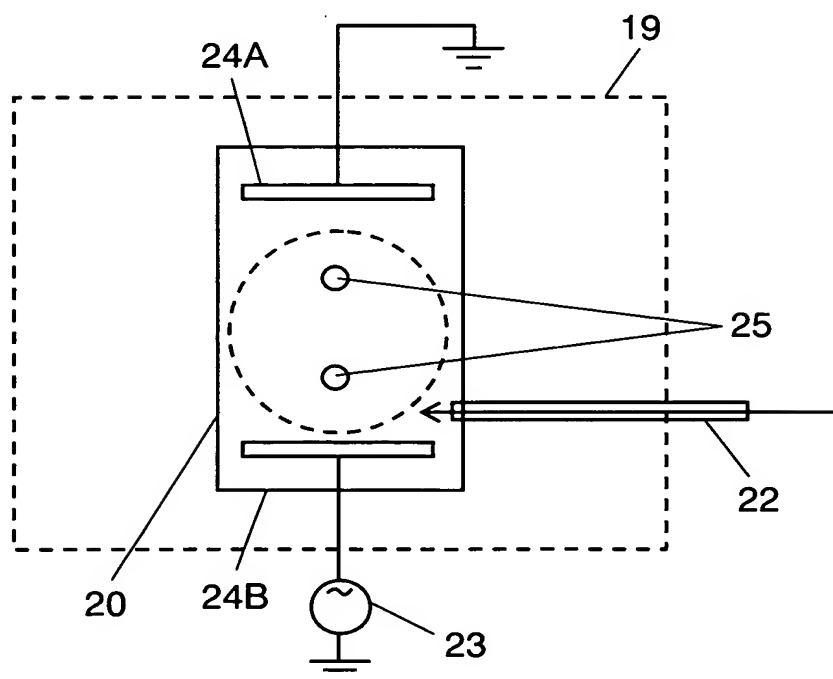


FIG. 8A

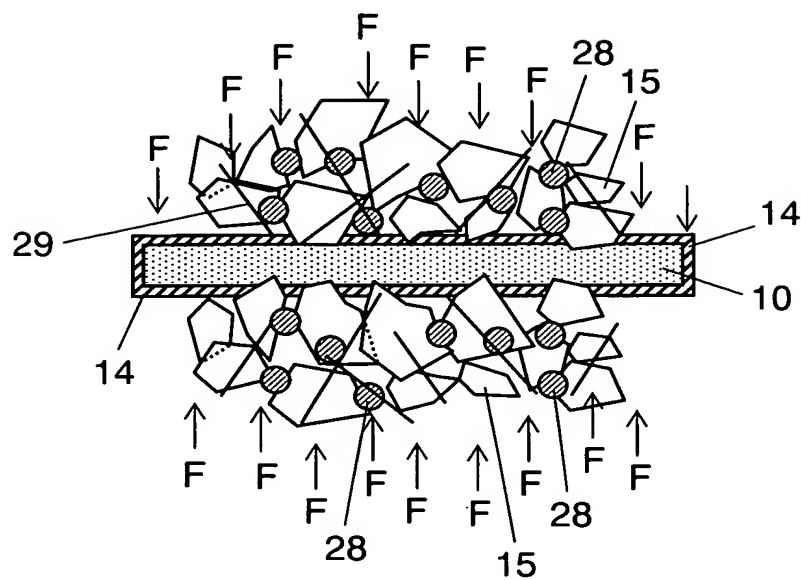


FIG. 8B

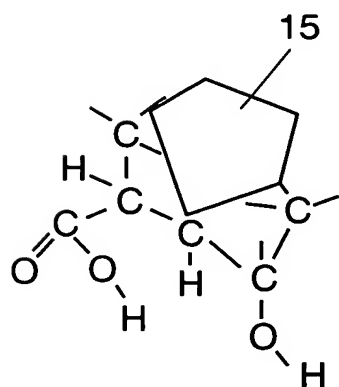


FIG. 8C

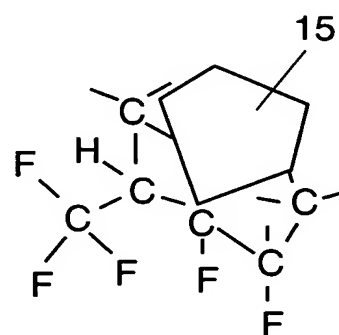


FIG. 9

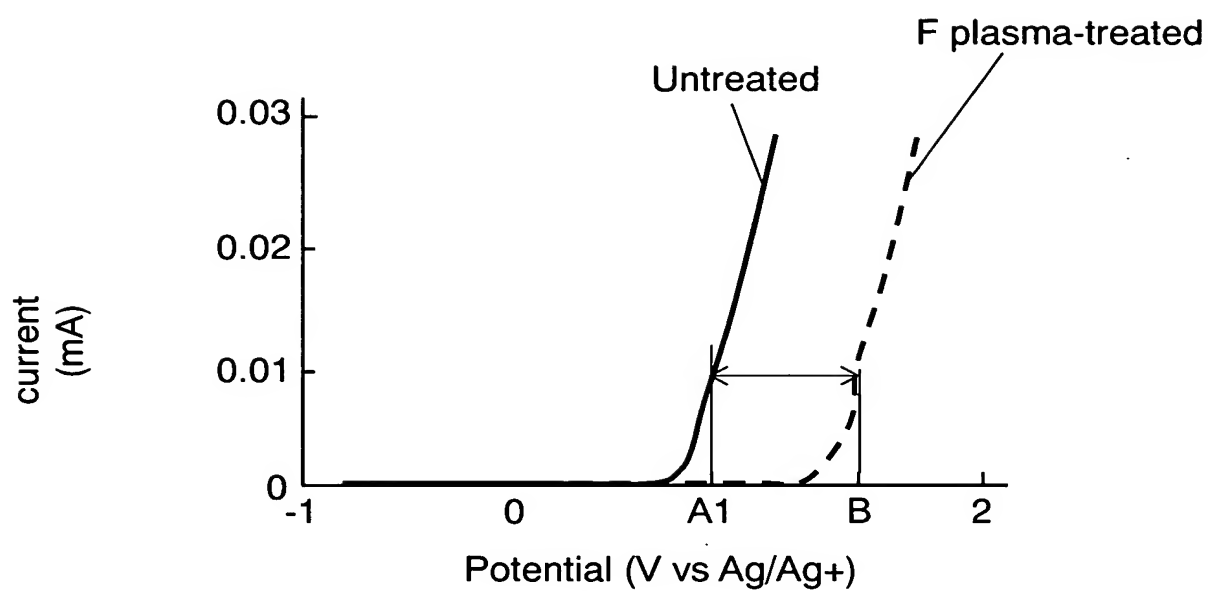


FIG. 10A

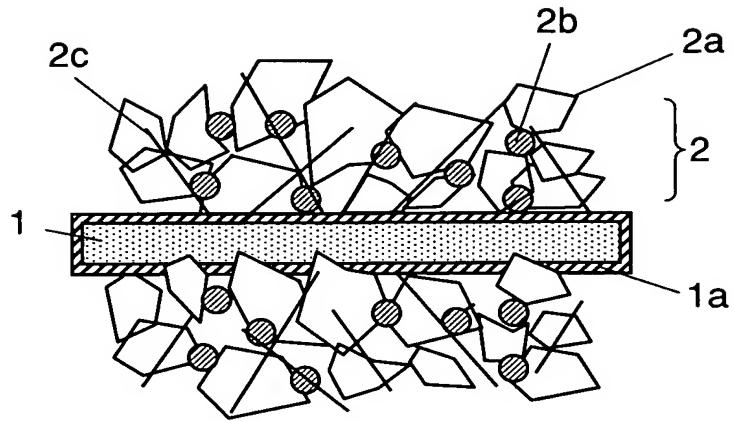


FIG. 10B

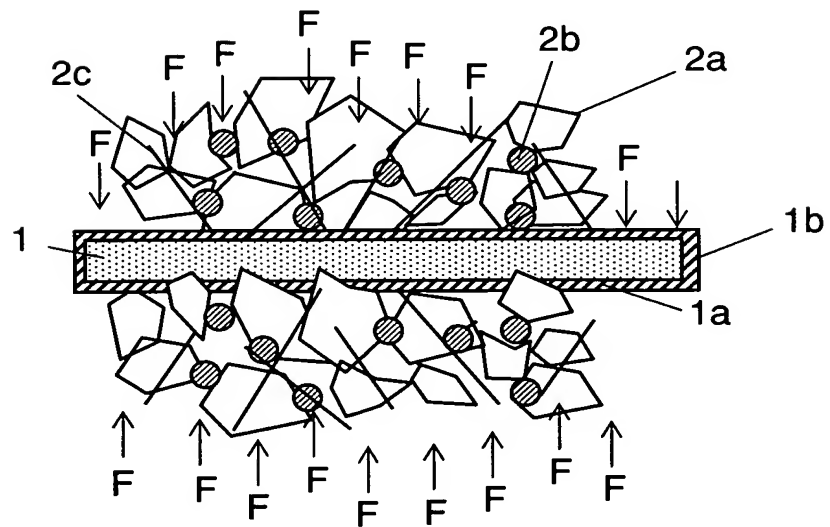


FIG. 11A

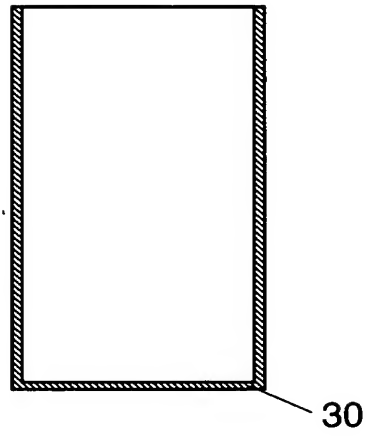


FIG. 11B

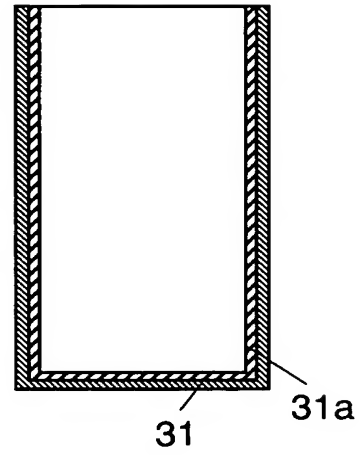


FIG. 12A

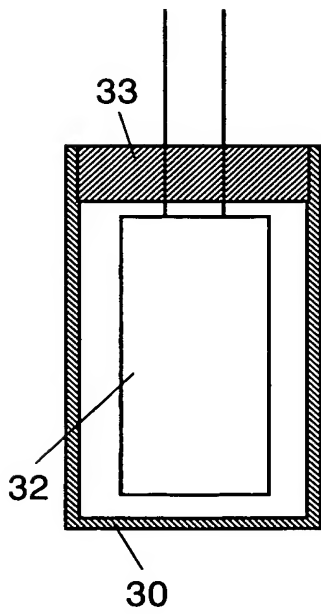


FIG. 12B

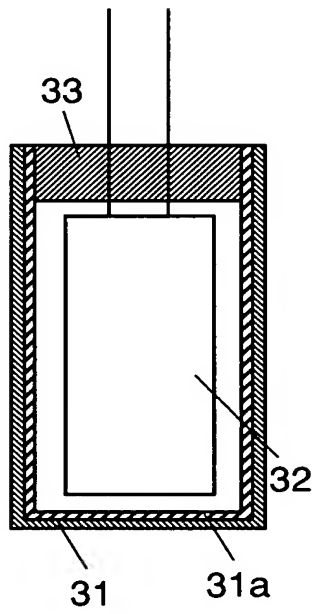


FIG. 12C

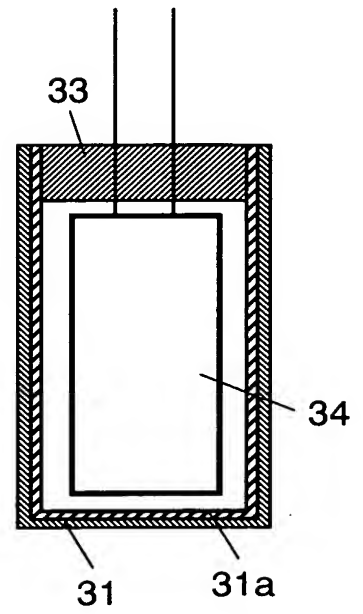


FIG. 13A

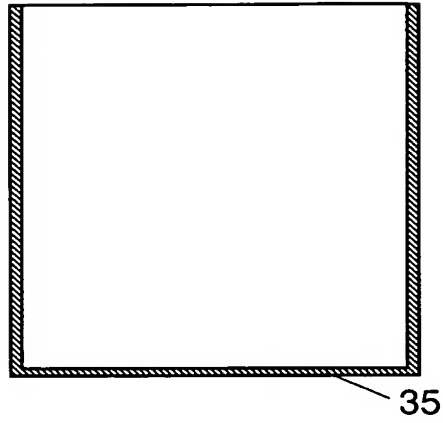


FIG. 13B

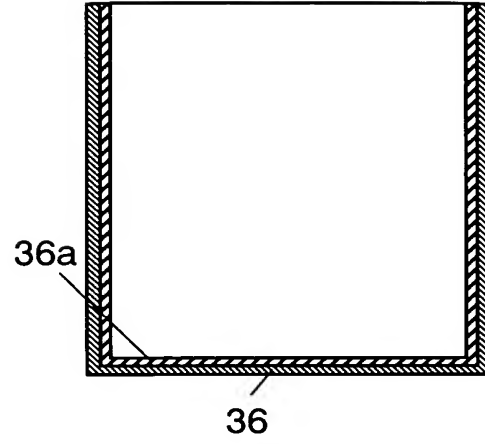


FIG. 14A

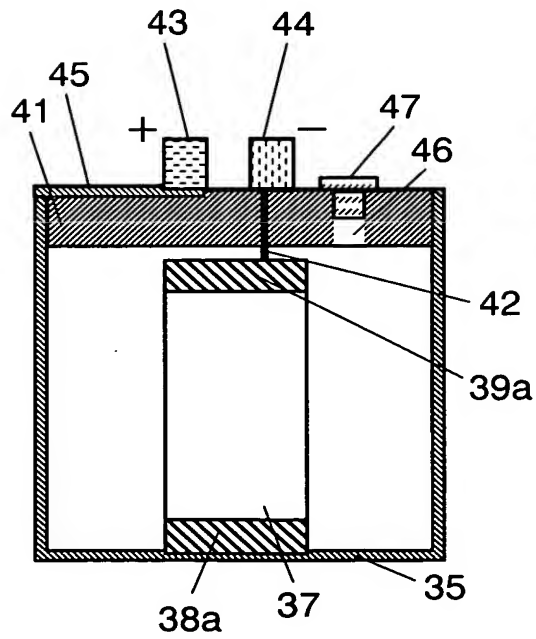


FIG. 14B

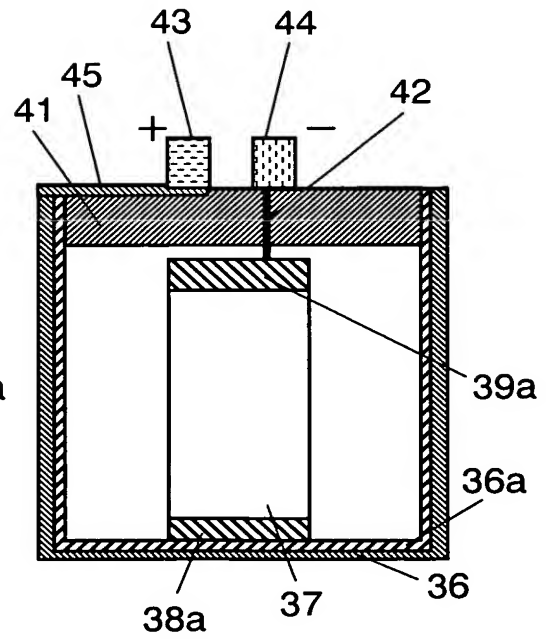


FIG. 15A

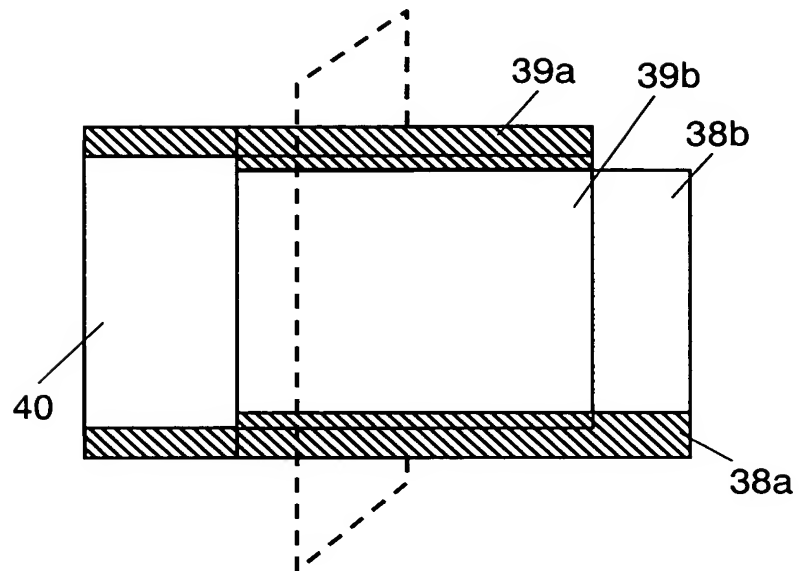


FIG. 15B

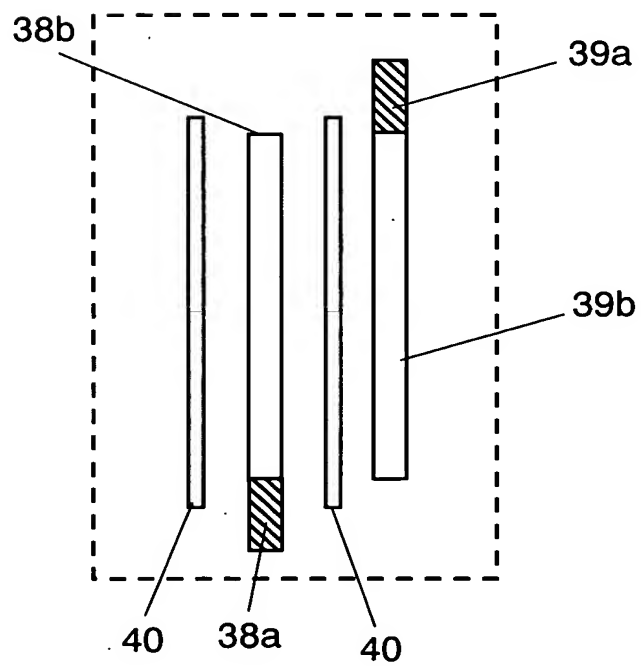


FIG. 16

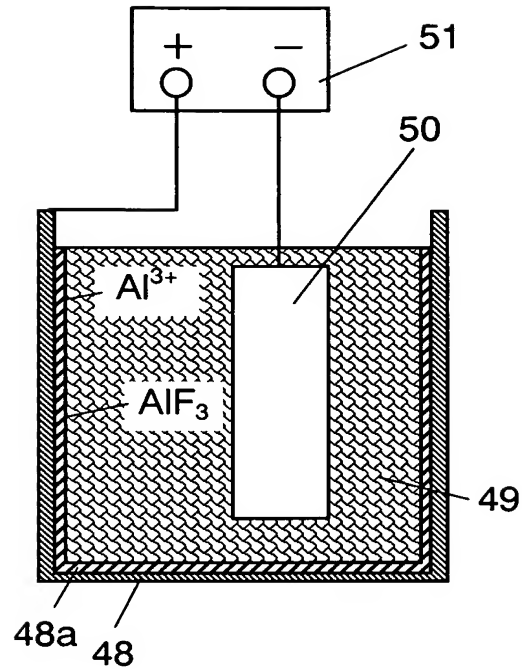


FIG. 17A

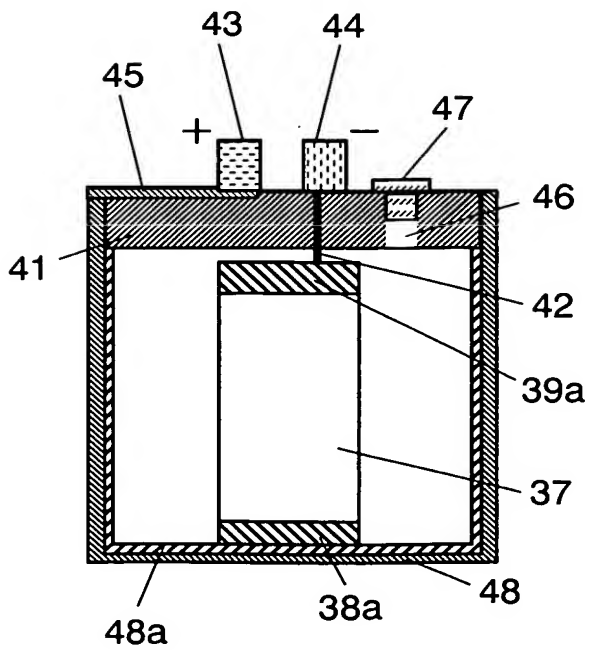


FIG. 17B

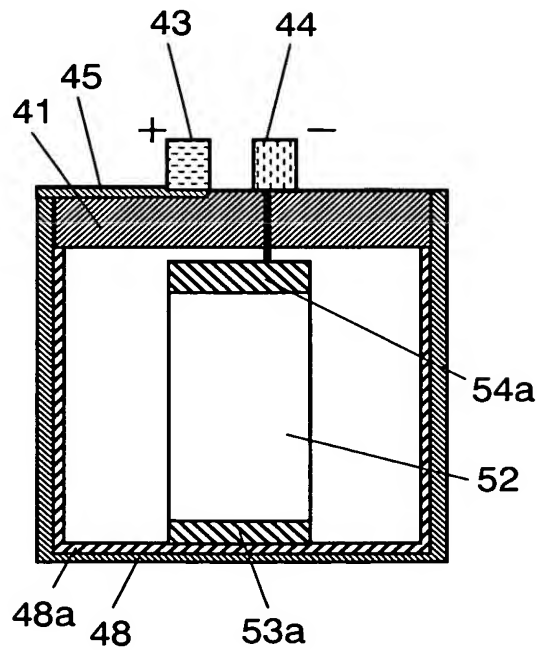


FIG. 18

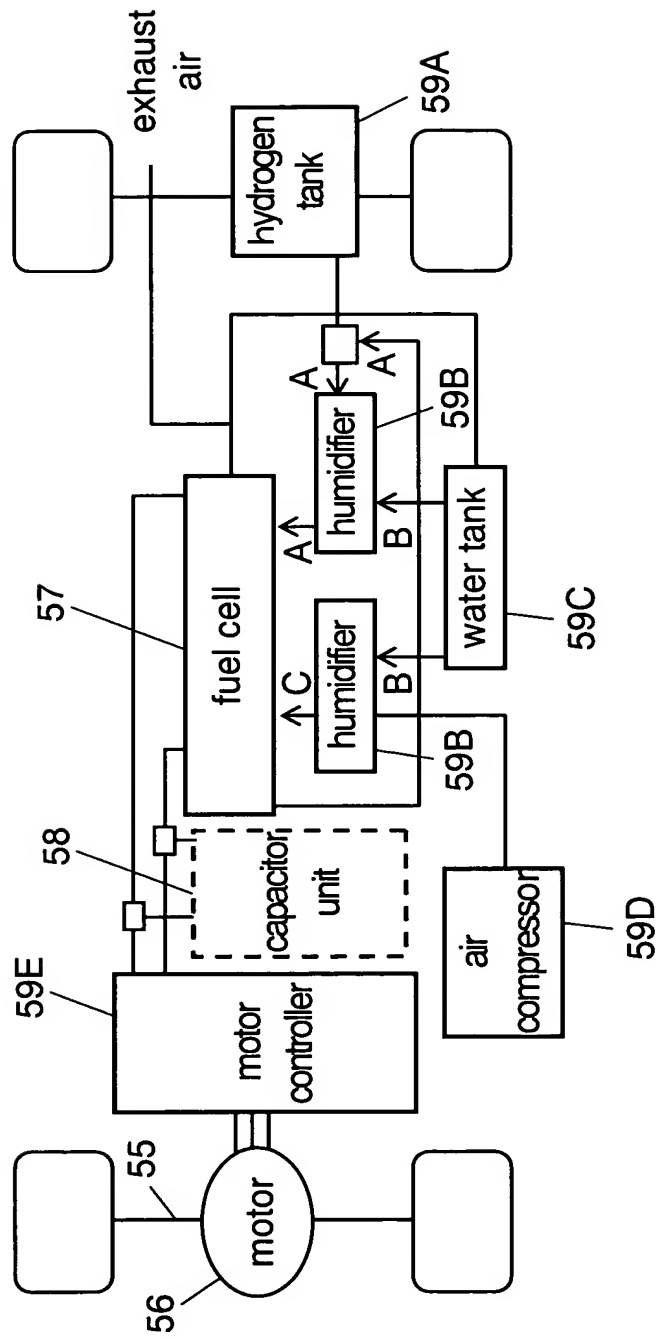


FIG. 19

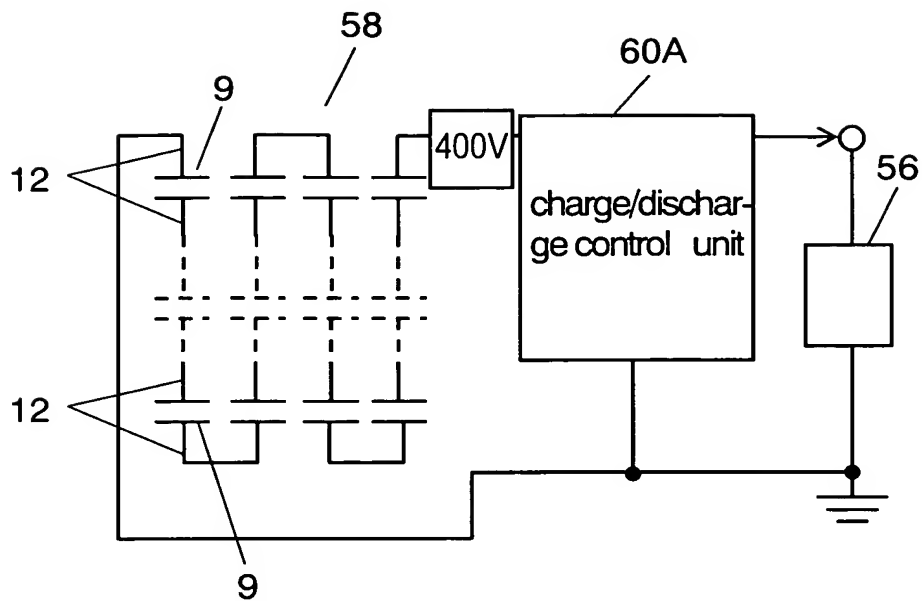
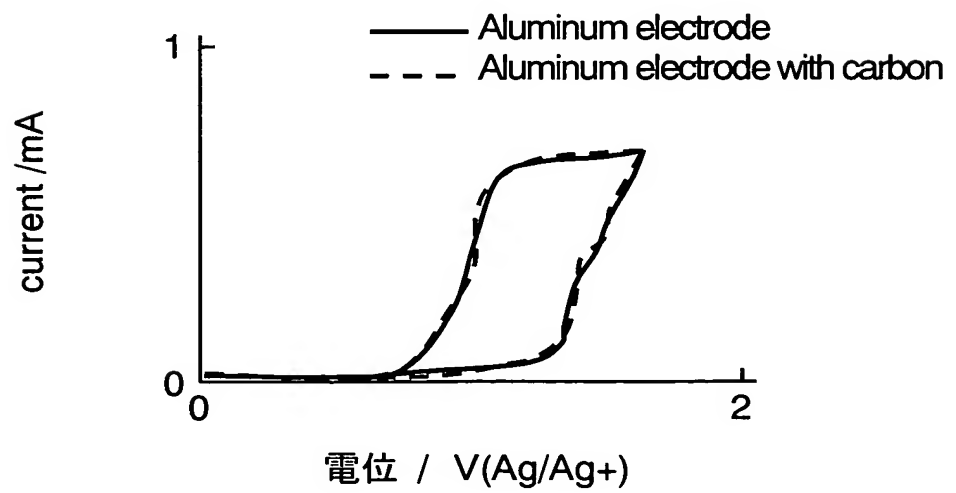


FIG. 20



Reference marks in the drawings

- 1 collector having an Al_4C_3 alloy layer
- 1a, 1b alloy layer
- 2 electrode layer
- 2a, 15 active carbon
- 2b, 28 conductive additive
- 2c, 29 binder
- 3 electrode body
- 4, 11, 40 separator
- 5, 12 lead wire
- 6 ring packing
- 7 sealant
- 8, 9, 30, 31, 35, 36, 48 case
- 10, 27 electrode foil
- 13, 33 sealing rubber
- 14 aluminum fluoride
- 15a anode active carbon
- 15b cathode active carbon
- 16 electrolytic solution
- 17 anion
- 18 cation
- 19 plasma treatment chamber
- 20 plasma generation chamber
- 21 chamber connection hole
- 22 gas inlet hole
- 23 high frequency power source
- 24A, 24B electrode
- 25 plasma outlet hole
- 26 plasma inlet hole
- 27a untreated electrode foil
- 27b treated electrode foil
- 31a, 36a aluminum fluoride layer
- 32, 34, 37, 52 element
- 38a, 53a anode current collector
- 38b anode electrode
- 39a, 54a cathode current collector

39b cathode electrode
41 sealing member
42 lead plate
43 anode terminal
44 cathode terminal
45 connection bar
46 inlet
47 pressure control valve
49 fluorine-containing solution
50 counter electrode
51 DC power source
55 axle
56 motor
57 fuel cell
58 capacitor unit
59A hydrogen tank
59B humidifier
59C water tank
59D air compressor
59E motor controller
60A charge/discharge control circuit